

REMARKS

The last Office Action of March 4, 2008 has been carefully considered. Reconsideration of the instant application in view of the foregoing amendments and the following remarks is respectfully requested.

Claims 1-34 have now been canceled and replaced by new claims 35-50 which more particularly point out and distinctly claim the subject matter which applicant regards as the invention. No amendment to the specification has been made. No fee is due.

Claims 1, 3, 6, 7-21, 23 and 25-34 stand rejected under 35 U.S.C. §102(b) as being anticipated by U.S. Pat. No. 6,431,996 to Wright ("Wright").

Claims 2, 4, 5, 22 and 24 stand rejected under 35 U.S.C. §103(a) as being unpatentable over Wright in view of U.S. Pat. No. 5,707,302 to Leon ("Leon") and further in view of U.S. Pat. No. 4,928,965 to Yamaguchi ("Yamaguchi").

New claim 35 recites subject matter previously included in the combination of claims 1 and 16. Canceled claim 16 recited a harmonic series.

New claim 50 recites subject matter previously included in the combination of canceled claims 1 and 12.

Figure 8 of Wright shows the normal mode shapes for a uniform beam with free-boundary conditions which, as is well known in physics, represents the excursions of the beam in space with the illustrated boundary conditions, namely a free handling part and a free impact part. As described in Wright with reference to FIG. 8, "the location of the 3 dB points determines the location of the stiffeners to be added to the shaft. Consistent with the foregoing, stiffeners are added to the

shaft such that each stiffener is contiguous with one of 3 dB regions 230 and 232 of the second mode and no single stiffener is contiguous with both 3 dB points 130 and 132."

As can be clearly seen in FIG. 8, there are no actuating elements disposed at the harmonic points $1/2$, $1/3$, $1/4$, etc., as recited in claim 35. Accordingly, Wright fails to teach or suggest the particular location of the actuating elements which Applicant found to be beneficial. Claim 35 is therefore not anticipated by Wright.

Further, the location of the maxima/ minima/ zero crossings of the excursions of the beam has no relationship whatsoever with the claimed location of the actuating elements along the actuating part, as claimed with particularity in new claim 50. The arrangement of these actuating elements according to a geometric series provides an advantageous response from the impacting instrument upon contact with an object, which is not taught or reasonably suggested by Wright.

Applicant wishes to point out that unlike conventional solutions which are aimed to suppress or shift certain characteristic frequencies of the actuating part, the present invention intends to change the spectrum of the characteristic frequencies by more prominently exciting higher frequencies which are usually viewed as interfering less with the performance of the impacting instrument.

Leon discloses a particular design of a club head. Yamagushi discloses the

design of a golf club head so that the mechanical impedance of the club head is at a minimum at a frequency where the ball to be struck also has a minimum impedance. Neither Leon nor Yamagushi concern themselves with the design of the actuating part.

For the reasons set forth above, it is applicant's contention that neither Wright, nor Leon, nor Yamagushi, taken alone or in any combination teaches or suggests the features of the present invention, as recited in claims 35 or 50.

Claims 36-49 which depend from claim 35 and therefore contain all the limitations thereof, patentably distinguish over the applied prior art in the same manner as claim 35.

Applicant believes that when reconsidering the claims in the light of the above comments, the Examiner will agree that the invention is in no way properly met or anticipated or even suggested by any of the references however they are considered.

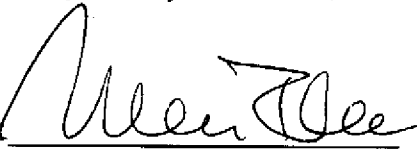
None of the references teaches or suggests at least the arrangement of the actuating elements along the actuating part as a geometric series.

Reconsideration and allowance of the present application are respectfully requested.

Should the Examiner consider necessary or desirable any formal changes anywhere in the specification, claims and/or drawing, then it is respectfully requested that such changes be made by Examiner's Amendment, if the Examiner feels this would facilitate passage of the case to issuance. If the Examiner feels that it might be helpful in advancing this case by calling the undersigned, applicant would greatly appreciate such a telephone interview.

Respectfully submitted,

By



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